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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,456	01/31/2002	Steven Teig	SPLX.P0099	2203

23349 7590 07/27/2004

STATTLER JOHANSEN & ADELI
P O BOX 51860
PALO ALTO, CA 94303

EXAMINER	
TAT, BINH C	

ART UNIT	PAPER NUMBER
2825	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,456	TEIG ET AL.	
	Examiner	Art Unit	
	Binh C. Tat	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *amendment on 05/20/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 06/28/04, 03/16/04, 02/05/04, 01/03/04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application 10/066456 filed on 01/31/02.

Claims 1-18 remain pending in the application.

Examiner appreciates the detailed remark offered by Applicant. Base on the remarks and Amendment Examiner has performed additional search, and found a new references.

Claim Objections

Claims 1-18 are object to: The recitation of "output functions", is not clear to what applicants intend to mean.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Belkhale et al. (U.S. 6023566).

3. As to claims 1 (method) and 15 (computer program) Belkhale et al. teach a method for performing technology mapping, the method comprising: a) receiving a design that is not bounded to a particular technology (see col 2 lines 1-50); b) repeatedly: selecting from the design a candidate sub-network (see col 2 lines 1-50); identifying at least one replacement sub-network from a storage structure that stores replacement sub-networks (see fig 2, fig 3 col 3 lines 32 to col 5 lines 45); replacing the selected candidate sub-network in the design with the replacement sub-network (see col 5 lines 2 to col 7 lines 42); c) wherein at least a particular one of the

selected candidate sub- candidate sub network has multiple circuit elements that provide multiple outputs of the particular candidate (see col 5 lines 2 to col 7 lines 42).

4. As to claims 2 Belkhale et al. teach wherein identifying the replacement sub- network comprises: generating a parameter based on a set of output functions performed by the selected candidate sub-network, wherein the parameter identifies the replacement sub-network (see col 5 lines 2 to col 7 lines 42).

5. As to claims 3 Belkhale et al. teach further comprising: using the parameter to retrieve the replacement sub-network from the storage structure (see col 4 lines 13 to 50).

6. As to claims 4 Belkhale et al. teach wherein the set of output functions includes only one output function.

7. As to claims 5 Belkhale et al. teach wherein the set of output functions includes one or more output functions (see col 5 lines 2 to col 7 lines 42 and background and summary).

8. As to claims 6-7 and 16-18 Belkhale et al. teach terminating the repetitions once a stopping criteria is reached (see col 5 lines 2 to col 7 lines 42 and background and summary); and wherein the received design is not bounded to a particular technology and includes a plurality of circuit elements, the sub-networks are formed by circuit elements, and the storage structure store replacement sub-networks that are bound to the technology, the method further comprising: after terminating the repetitions, traversing the design to identify circuit elements that are not bound to the technology (see col 2 lines 1-50); for each identified circuit element, attempting to identify a replacement sub-network that is stored in the storage structure (see fig 2, fig 3 col 3 lines 32 to col 5 lines 45); if at least one replacement sub-network for an identified circuit element is identified, replacing the circuit element in the design with the identified

replacement sub-network (see col 5 lines 2 to col 7 lines 42).

9. As to claims 8-9 Belkhale et al. teach wherein if more than one replacement sub-networks are identified for a circuit element, selecting one of the replacement sub-networks and replacing the circuit element with the selected replacement sub-network (see fig 2, fig 3 col 3 lines 32 to col 5 lines 45).

10. As to claim 10 Belkhale et al. teach wherein each circuit element performs a function, wherein if no replacement sub-network is identified for an identified circuit element, decomposing the function of the circuit element into a set of functions, and then attempting to identify a set of replacement sub-networks in the storage structure that perform the set of functions (see col 5 lines 2 to col 7 lines 42 and background and summary).

11. As to claims 11-12 Belkhale et al. teach wherein traversing the design to identify circuit elements comprises identifying circuit elements that existed in the design when the design was received (see col 5 lines 2 to col 7 lines 42 and background and summary); after traversing the design, repeatedly: selecting from the design a candidate sub-network, identifying at least one replacement sub-network from a storage structure that stores replacement sub-networks, replacing the selected candidate sub-network in the design with the replacement sub-network (see col 5 lines 2 to col 7 lines 42 and background and summary).

12. As to claims 13-14 Belkhale et al. teach before replacing the candidate sub-networks with the replacement sub-networks, evaluating whether to replace the selected candidate sub-network with the replacement sub network, wherein certain candidate sub-networks are replaced by replacement sub-networks based on the evaluation, wherein certain candidate sub-networks are not replaced based on the evaluations (see col 5 lines 2 to col 7 lines 42 and background)

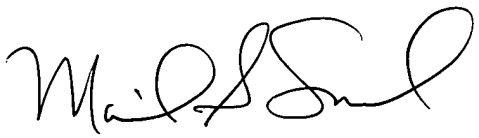
Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh C. Tat whose telephone number is (571) 272-1908. The examiner can normally be reached on 7:30 - 4:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Smith can be reached on (5710 272-1907. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Binh Tat
Art Unit 2825
July 26, 2004



MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800